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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Appellant: **Michael P. SPRATT**) Examiner: Huy D. NGUYEN  
Serial No.: **10/057,741**)  
Filed: January 23, 2002) Art Unit: 2681  
For: "LOCATION DATA VALIDATION) Our Ref: B-4469 619470-0  
BY STATIC ENTITIES RECEIVING) Date: June 3, 2005  
LOCATION DATA ITEMS BY) Re: *Appeal to the Board of Appeals*  
SHORT-RANGE) COMMUNICATION"

**BRIEF ON APPEAL**

Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This is an appeal from the Final rejection dated March 21, 2005 for the above identified patent application. The Notice of Appeal is filed concurrently, together with an authorization to charge the requisite fee, and a courtesy copy is attached hereto. Please charge the amount of \$500.00 for the fee set forth in 37 C.F.R. 1.17(c) for submitting this Brief to deposit account no. 08-2025.

**REAL PARTY IN INTEREST**

The real party in interest to the present application is the Hewlett-Packard Company, a Delaware Corporation, headquartered in Palo Alto, CA.

**STATUS OF CLAIMS**

Claims 1 – 3, 5-13 and 16-20 are the subject of this Appeal and are reproduced in the accompanying appendix. Claims 4 and 14-15 have been canceled.

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## **STATUS OF AMENDMENTS**

No Amendment After Final Rejection has been entered.

## **SUMMARY OF THE CLAIMED INVENTION**

The present invention is concerned generally with the estimation of one's location based upon information received via short-range wireless communication devices. In particular, the invention is concerned with methods and associated devices by which a typically static device having such short-range wireless functionality (such as a Bluetooth-equipped printer) can function to provide reliable location reference information to other devices passing nearby even after the static device has been moved. (p. 7, ll. 23-30) Such a static entity would typically be able to ascertain its own location with a high degree of certainty as time passes and the device accumulates location information from mobile devices passing nearby. (p. 9, ll. 26-32) The static device is able to detect that it has been moved through a variety of different indicators. (p. 10, l. 12 – p. 11, l. 14) Upon receiving any one or more of such indications, the static entity may select one of a number of actions regarding location data that it has, that it is receiving, and that it is transmitting. (p. 11, ll. 16-26) One particular action that is specifically recited in claim 1 is, upon detecting movement and determining that the static entity's current location estimate is invalid, discarding the current location estimate using subsequently received location data to estimate a new current location. Claim 16 recites a similar action, wherein the current location estimate is discarded merely upon detecting movement of the static entity.

## **ISSUES**

Issue 1: Whether the subject matter of Claims 1, 16 and 18 is supported by Applicant's priority document GB 0102417.3 and U.S. Patent No. 6,725,051 to Fidler (hereinafter "Fidler") is thereby invalid as a 35 U.S.C. 102(e) reference against these claims.

## THE ARGUMENT

**Issue 1: Whether the subject matter of Claims 1, 16 and 18 is supported by Applicant's priority document GB 0102417.3 and U.S. Patent No. 6,725,051 to Fidler (hereinafter "Fidler") is thereby invalid as a 35 U.S.C. 102(e) reference against these claims.**

In the Office Action mailed on September 30, 2004, the Examiner rejected Claims 1-4, 6-9 and 14-17 under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,725,051 to Fidler. In a reply mailed on December 27, 2004, Appellant noted that the present application claims an earliest priority date of January 31, 2001, the filing date of priority document GB 0102417.3. Thus, Appellant submitted that, because the subject matter of claims 1 and 16 is fully disclosed in this earliest priority document, the Fidler document does not antedate claim 1, and is therefore not a proper 35 U.S.C §102 reference against claims 1 and 16.

According to Section 1 of the present Action, “[t]he Examiner states that no support is found in the applicant's priority document GB 0102417.3 for claims 1 and 16. Therefore, Fidler reference is a proper 35 USC 102 reference against claims 1 and 16.” Given this general statement, with absolutely no supporting reasoning from the Examiner as to why he fails to find the requisite support in the priority document, Appellant believes that an impasse has been reached with the Examiner and thus is compelled to file the present Appeal.

Attached hereto for ease of reference (as was done in Appellant's previous reply to the Examiner) are the relevant portions of Appellant's priority document GB 0102417.3, including page 22 of the specification and claims 25 and 26. A certified copy of the entire priority document was submitted to the Patent Office on July 8, 2002. Each limitation of claim 1 and the corresponding disclosure in the priority document is addressed below.

- “A static but movable device” – “A static but movable device” (Claim 25, line 1);

- “a short-range wireless receiver” – “location means for receiving location data passed to it from nearby devices” (Claim 25, ll. 1-2); the entire priority document is replete with explicit statements that the entire invention concerns itself with wireless communications only and that the devices contemplated are equipped with wireless transceivers;
- “a location-data processing arrangement for deriving successive estimates of the current location of the device using location data received on an on-going basis by the short-range receiver” - “location means for receiving location data passed to it from nearby devices and for deriving a best estimate of its own location from the received location data” (Claim 25, ll. 1-3);
- “a move detection arrangement for detecting indications that the device at least may have been moved” – “watch means for watching for an indication that the device has been, or may have been moved” (Claim 25, ll. 3-4);
- “a location-validity supervisor for determining, following detection of one or more indications by the move detection arrangement, whether the current location estimate is to be treated as still valid, the location-data processing arrangement being arranged, in response to the location-validity supervisor determining that the current location estimate is invalid, to discard that location estimate as current and thereafter use subsequently-received location data to derive a new current location estimate” - “watch means for watching for an indication that the device has been, or may have been moved, and for causing the location means to discard its previously-obtained location data and location estimate” (Claim 25, ll. 3-5); “When a static device is moved into a new location, it must discard all its previously accumulated location data and start afresh.”  
(Page 22, ll. 11-12).

Similarly, for claim 16:

- “A static but movable device” – “A static but movable device” (Claim 25, line 1);

- “location means for receiving location data passed to it from nearby devices and for deriving a best estimate of its own location from the received location data” - “location means for receiving location data passed to it from nearby devices and for deriving a best estimate of its own location from the received location data” (Claim 25, ll. 1-3);
- “watch means for watching for an indication that the device has been, or may have been moved, and upon detecting such an indication, for causing the location means to discard its previously-obtained location data and location estimate and to derive afresh a said best estimate of its own location” - “watch means for watching for an indication that the device has been, or may have been moved, and for causing the location means to discard its previously-obtained location data and location estimate” (Claim 25, ll. 3-5); “When a static device is moved into a new location, it must discard all its previously accumulated location data and start afresh.” (Page 22, ll. 11-12).

In the present Action the Examiner further rejects claim 18 in view of Fidler, which claim is addressed below:

- “A static but movable device” – “A static but movable device” (Claim 25, line 1);
- “a short-range wireless receiver” – “location means for receiving location data passed to it from nearby devices” (Claim 25, ll. 1-2); the entire priority document is replete with explicit statements that the entire invention concerns itself with wireless communications only and that the devices contemplated are equipped with wireless transceivers;
- “a location-data processing arrangement for deriving an estimate of the current location of the device on the basis of location data received by the short-range receiver” - “location means for receiving location data passed to it from nearby devices and for deriving a best estimate of its own location from the received location data” (Claim 25, ll. 1-3);
- “a move detection arrangement for detecting indications that the device at least may have been moved, the move detection arrangement comprising a first

detector arrangement for detecting a first said indication in the form of a change in the set of nearby devices from which the subject device can receive transmissions via its short-range receiver” – “watch means for watching for an indication that the device has been, or may have been moved” (Claim 25, ll. 3-4); the Examiner has already acknowledged that “detecting a first said indication in the form of a change in the set of nearby devices from which the subject device can receive transmissions via its short-range receiver” is supported via his indication of allowability of claim 11, which recites this limitation;

- “a location-validity supervisor for determining, following detection of one or more indications by the move detection arrangement, whether the current location estimate is to be treated as still valid” - “watch means for watching for an indication that the device has been, or may have been moved, and for causing the location means to discard its previously-obtained location data and location estimate” (Claim 25, ll. 3-5).

The above clearly shows, with great specificity, where each and every single limitation of claim 1, 16 and 18 is unequivocally disclosed, in the view of one skilled in the art, in Appellant’s priority document GB 0102417.3. The Examiner’s alleged failure to find support for these claims in the priority document is baseless, and Appellant respectfully requests that the Examiner’s rejection of claims 1, 16 and 18 in view of Fidler be overturned on Appeal because the document relied upon by the Examiner to support the rejection of these claims is not a proper prior art reference under 35 U.S.C. §102.

Because claims 1-3 and 6-10 depend from claim 1, claim 17 depends from claim 16, and claim 19 depends from claim 18, these claims are also allowable in view of the cited art.

**CONCLUSION**

For the extensive reasons advanced above, Appellant respectfully contends that each claim currently pending is patentable. Therefore, reversal of all rejections and objections and re-opening of the prosecution is respectfully solicited.

I hereby certify that this correspondence is being deposited with the United States Post Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop Appeal Brief-Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on

June 3, 2005

(Date of Transmission)

Mia Kim

(Name of Person Transmitting)



(Signature)

6/3/05

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Respectfully submitted,



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Attachments: Notice of Appeal

Claims

1. (previously presented) A static but movable device, comprising:
  - a short-range wireless receiver;
  - a location-data processing arrangement for deriving successive estimates of the current location of the device using location data received on an on-going basis by the short-range receiver;
  - a move detection arrangement for detecting indications that the device at least may have been moved, and
  - a location-validity supervisor for determining, following detection of one or more indications by the move detection arrangement, whether the current location estimate is to be treated as still valid, the location-data processing arrangement being arranged, in response to the location-validity supervisor determining that the current location estimate is invalid, to discard that location estimate as current and thereafter use subsequently-received location data to derive a new current location estimate.
2. (original) A device according to claim 1, wherein the move detection arrangement comprises an arrangement for detecting a said indication in the form of an indication that the device has been powered down and then powered back up.
3. (original) A device according to claim 1, wherein the move detection arrangement comprises an motion detector for

detecting a said indication in the form of an indication of physical motion of the device.

4. (cancelled)

5. (original) A device according to claim 1, wherein the move detection arrangement comprises an arrangement for detecting a said indication in the form of a change in the set of nearby devices from which the subject device can receive transmissions via its short-range receiver.

6. (original) A device according to claim 1, wherein the move detection arrangement comprises an arrangement for detecting a said indication in the form of an inconsistency between newly received location data and one or both of the current location estimate and previously-received location data.

7. (previously presented) A device according to claim 1, wherein the move detection arrangement comprises at least two of the following:

an arrangement for detecting a said indication in the form of an indication that the device has been powered down and then powered back up;

a motion detector for detecting a said indication in the form of an indication of physical motion of the device;

an arrangement for detecting a said indication in the form of a change in the set of nearby devices from which the subject device can receive transmissions via its short-range receiver;

an arrangement for detecting a said indication in the form of an inconsistency between newly received location data and one or both of the current location estimate and previously-received location data.

8. (original) A device according to claim 1, wherein the location-validity supervisor is operative to determine that the current location estimate is invalid upon detection of one said indication by the move detection arrangement.

9. (original) A device according to claim 1, wherein the move detection arrangement is operative to detect at least two different types of indications, the location-validity supervisor being operative to determine that the current location estimate is invalid upon detection of a predetermined combination of indications of two or more types by the move detection arrangement.

10. (original) A device according to claim 9, wherein the move detection arrangement comprises both a first detector arrangement for detecting a first said indication in the form of an indication that the device has been powered down and then powered back up, and a second detector arrangement for detecting a second said indication constituted by a change in the set of nearby devices from which the subject device can receive

transmissions via its short-range receiver; the location-validity supervisor being responsive to the detection of a said first indication to query the second detector arrangement as to whether said second indication is present, the location-validity supervisor determining the current location estimate to be invalid when both said first and second indications are present.

11. (original) A device according to claim 9, wherein the move detection arrangement comprises both a first detector arrangement for detecting a first said indication in the form of an indication that the device has physically been subject to motion, and a second detector arrangement for detecting a second said indication constituted by a change in the set of nearby devices from which the subject device can receive transmissions via its short-range receiver; the location-validity supervisor being responsive to the detection of a said first indication to query the second detector arrangement as to whether said second indication is present, the location-validity supervisor determining the current location estimate to be invalid when both said first and second indications are present.

12. (original) A device according to claim 1, wherein the location-validity supervisor is operative to determine that the current location estimate is invalid upon detection of multiple occurrences of one type of indication.

13. (original) A device according to claim 12, wherein the move detection arrangement comprises a consistency-check arrangement for detecting a said indication in the form of an

inconsistency between newly received location data and one or both of the current location estimate and previously-received location data, the location-validity supervisor being operative to determine that the current location estimate is invalid upon detection of multiple occurrences of a said indication by the consistency-check arrangement.

14. - 15. (cancelled)

16. (previously presented) A static but movable device comprising location means for receiving location data passed to it from nearby devices and for deriving a best estimate of its own location from the received location data, and watch means for watching for an indication that the device has been, or may have been moved, and upon detecting such an indication, for causing the location means to discard its previously-obtained location data and location estimate and to derive afresh a said best estimate of its own location .

17. (original) A device according to claim 16, wherein the watch means comprises at least one of:

- means for detecting power down / power up of the device;
- means for detecting a significant discrepancy between the most recently received location data and previously received location data;
- a displacement sensor.

18. (previously presented) A static but movable device comprising:

a short-range wireless receiver;

a location-data processing arrangement for deriving an estimate of the current location of the device on the basis of location data received by the short-range receiver;

a move detection arrangement for detecting indications that the device at least may have been moved, the move detection arrangement comprising a first detector arrangement for detecting a first said indication in the form of a change in the set of nearby devices from which the subject device can receive transmissions via its short-range receiver, and

a location-validity supervisor for determining, following detection of one or more indications by the move detection arrangement, whether the current location estimate is to be treated as still valid.

19. (previously presented) A device according to claim 18, wherein the move detection arrangement further comprises a second detector arrangement for detecting a second said indication in the form of an indication that the device has been powered down and then powered back up; the location-validity supervisor being responsive to the detection of a said second indication to query the first detector arrangement as to whether said first indication is present, the location-validity supervisor determining the current location estimate to be invalid when both said first and second indications are present.

20. (previously presented) A device according to claim 18, wherein the move detection arrangement further comprises a second detector arrangement for detecting a second said indication in the form of an indication that the device has physically been subject to motion; the location-validity supervisor being responsive to the detection of a said second indication to query the first detector arrangement as to whether said first indication is present, the location-validity supervisor determining the current location estimate to be invalid when both said first and second indications are present.